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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,672	03/30/2001	Michael P. Dallmeyer	051252-5189	4276

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MORGAN LEWIS & BOCKIUS LLP
1111 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 20004

EXAMINER

KIM, PAUL D

ART UNIT

PAPER NUMBER

3729

DATE MAILED: 05/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,672

Applicant(s)

DALLMEYER ET AL.

Examiner

Paul D Kim

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4-8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Dallmeyer et al. (US PAT. 6,499,668).

The applied reference has a common assignee and inventors with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Dallmeyer et al. teach a method of manufacturing a fuel injector comprising steps of: providing a clean room; fabricating a fuel tube assembly (200A,200B) as shown in Fig. 2; fabricating an armature assembly (260) as shown in Fig. 2; fabricating a seat assembly (250) as shown in Fig. 1; and assembling a fuel group comprising:

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inserting an adjusting tube (280) into the fuel assembly; inserting biasing element (270) into the fuel tube assembly; inserting the armature assembly into the fuel tube assembly; connecting the seat assembly to the fuel tube assembly; and inserting the fuel group into a power group outside the clean room (col. 3, line 6 to col. 10, line 50).

As per claims 2 and 12 Dallmeyer et al. teach a process of connecting an inlet tube (210) to a magnetic pole piece (220) as shown in Fig. 1.

As per claims 3 and 13 Dallmeyer et al. teach a process of connecting a magnetic pole piece (220) to a non-magnetic shell (230) as shown in Fig. 1.

As per claims 4 and 14 Dallmeyer et al. teach a process of connecting a non-magnetic shell (230) to a valve body (240) as shown in Fig. 1.

As per claims 5 and 15 Dallmeyer et al. teach a process of connecting a magnetic armature (262) to a non-magnetic sealing element (264) to as shown in Fig. 1.

As per claims 6 and 16 Dallmeyer et al. teach a process of connecting an armature tube (266) between the magnetic armature and the sealing element as shown in Fig. 1.

As per claims 7 and 17 Dallmeyer et al. teach a process of connecting a sealing element guide to a valve seat (250) to as shown in Fig. 1.

As per claims 8, 9, 18 and 19 Dallmeyer et al. teach a process of installing a filter (284A) into the fuel tube assembly and connecting to the adjusting tube as shown in Fig. 1.

As per claim 11 Dallmeyer et al. teach a process of setting an injector lift height disclosed in col. 5, lines 55-59.

As per claim 20 Dallmeyer et al. teach that the armature tube is non-magnetic disclosed col. 4, lines 3-16.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perry (US PAT. 6,454,192) in view of Dallmeyer et al. '688.

Perry teaches a method of manufacturing a fuel injector comprising steps of: fabricating a fuel tube assembly (12) as shown in Fig. 1; fabricating an armature assembly (50) as shown in Fig. 1; fabricating a seat assembly (56,58) as shown in Fig. 1; and assembling a fuel group comprising: inserting an adjusting tube (54) into the fuel assembly; inserting biasing element (52) into the fuel tube assembly; inserting the armature assembly into the fuel tube assembly; and connecting the seat assembly to the fuel tube assembly (col. 2, line 23 to col. 4, line 8).

As per claims 2 and 12 Perry teaches a process of connecting an inlet tube (12) to a magnetic pole piece (44) as shown in Fig. 1.

As per claims 5 and 15 Perry teaches a process of connecting a magnetic armature (50) to a non-magnetic sealing element (48) to as shown in Fig. 1.

As per claims 6 and 16 Perry teaches a process of connecting an armature tube between the magnetic armature and the sealing element as shown in Fig. 1.

As per claims 7 and 17 Perry teaches a process of connecting a sealing element guide to a valve seat as shown in Fig. 1.

As per claims 8, 9, 18 and 19 Perry teaches a process of installing a filter (42) into the fuel tube assembly and connecting to the adjusting tube as shown in Fig. 1.

However, as per claims 3, 4, 11, 13, 14, and 20, Perry does not teach a process of providing a clean room, connecting a magnetic pole piece to a non-magnetic shell and connecting a non-magnetic shell to a valve body and setting an injector lift height. Dallmeyer et al. teach a process of providing a clean room and connecting a magnetic pole piece (220) to a non-magnetic shell (230) and connecting a non-magnetic shell (230) to a valve body (240) and setting an injector lift height as shown in Fig. 1. Dallmeyer et al. also teach that the armature tube is non-magnetic (col. 4, lines 3-16). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have provided a fabricating process for the fuel injector of Perry by providing a clean room as taught by Dallmeyer et al. for the purpose of preventing contaminant particles during the production.

It would also be obvious to have provided a non-magnetic shell for the fuel injector of Perry by providing a non-magnetic shell as taught by Dallmeyer et al. for the purpose of electrically separating magnetic pole piece from the valve body.

It would also be obvious to have provided a fabricating process for the fuel injector of Perry by setting an injector lift height as taught by Dallmeyer et al. for the purpose of controlling the lift height of the fuel injector.

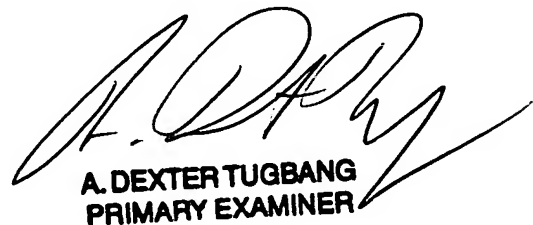
Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D Kim whose telephone number is 703-308-8356. The examiner can normally be reached on Tuesday-Friday between 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5648.

pdk
May 6, 2003


A. DEXTER TUGBANG
PRIMARY EXAMINER